



## SEQUENCE LISTING

<110> Neefe, John R.  
Boux, Leslie J.  
Winnett, Mark T.  
Goldstone, Stephen E.  
Siegel, Marvin

<120> HUMAN PAPILLOMA VIRUS TREATMENT

<130> 12071-003001

<140> US 09/891,823

<141> 2001-06-26

<150> US 60/214,202

<151> 2000-06-26

<160> 140

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 1

Gln Ala Glu Pro Asp Arg Ala His Tyr  
1 5

<210> 2

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 2

Gln Pro Glu Thr Thr Asp Leu Tyr Cys Tyr  
1 5 10

<210> 3

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 3

Tyr Met Leu Asp Leu Gln Pro Glu Thr  
1 5

<210> 4

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 4

Thr Leu His Glu Tyr Met Leu Asp Leu

*al*  
*contd.*

1 5

<210> 5  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 5  
 Leu Leu Met Gly Thr Leu Gly Ile Val  
 1 5

<210> 6  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 6  
 Thr Leu Glu Asp Leu Leu Met Gly Thr  
 1 5

<210> 7  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 7  
 Thr Pro Thr Leu His Glu Tyr Met Leu  
 1 5

a/ <210> 8  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 8  
 Thr Phe Cys Cys Lys Cys Asp Ser Thr Leu  
 1 5 10

<210> 9  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 9  
 His Tyr Asn Ile Val Thr Phe Cys Cys  
 1 5

<210> 10  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 10  
 Cys Tyr Glu Gln Leu Asn Asp Ser Ser  
 1 5

<210> 11

<211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 11  
 Asp Thr Pro Thr Leu His Glu Tyr Met Leu  
 1 5 10

<210> 12  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 12  
 Gly Ile Val Cys Pro Ile Cys Ser Gln Lys  
 1 5 10

<210> 13  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 13  
 Cys Val Gln Ser Thr His Val Asp Ile Arg  
 1 5 10

<210> 14  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

a <400> 14  
 Ile Val Cys Pro Ile Cys Ser Gln Lys  
 1 5

<210> 15  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 15  
 Val Gln Ser Thr His Val Asp Ile Arg  
 1 5

<210> 16  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 16  
 Cys Cys Lys Cys Asp Ser Thr Leu Arg  
 1 5

<210> 17  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 17

Leu Arg Leu Cys Val Gln Ser Thr His Val  
1 5 10

<210> 18

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 18

Arg Thr Leu Glu Asp Leu Leu Met Gly Thr  
1 5 10

<210> 19

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 19

Asp Glu Ile Asp Gly Pro Ala Gly Gln Ala  
1 5 10

<210> 20

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 20

Val Asp Ile Arg Thr Leu Glu Asp Leu  
1 5

<210> 21

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 21

Leu Gly Ile Val Cys Pro Ile Cys Ser  
1 5

<210> 22

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 22

Leu Glu Asp Leu Leu Met Gly Thr Leu  
1 5

<210> 23

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 23

Thr Asp Leu Tyr Cys Tyr Glu Gln Leu

1 5

<210> 24  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 24  
 Glu Glu Asp Glu Ile Asp Gly Pro Ala  
 1 5

<210> 25  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 25  
 Asn Asp Ser Ser Glu Glu Glu Asp Glu Ile  
 1 5 10

<210> 26  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 26  
 Leu Gln Pro Glu Thr Thr Asp Leu Tyr  
 1 5

<210> 27  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 27  
 Gly Gln Ala Glu Pro Asp Arg Ala His Tyr  
 1 5 10

<210> 28  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 28  
 Asp Ile Arg Thr Leu Glu Asp Leu Leu  
 1 5

<210> 29  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 29  
 Glu Pro Asp Arg Ala His Tyr Asn Ile  
 1 5

<210> 30

<211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 30  
 Cys Cys Lys Cys Asp Ser Thr Leu Arg Leu  
 1 5 10

<210> 31  
 <211> 8  
 <212> PRT  
 <213> Human papilloma virus

<400> 31  
 Asp Ile Arg Thr Leu Glu Asp Leu  
 1 5

<210> 32  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 32  
 Asp Arg Ala His Tyr Asn Ile Val Thr Phe  
 1 5 10

<210> 33  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 33  
 Ile Arg Thr Leu Glu Asp Leu Leu Met  
 1 5

<210> 34  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 34  
 Leu Arg Leu Cys Val Gln Ser Thr His  
 1 5

<210> 35  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 35  
 His Gly Asp Thr Pro Thr Leu His Glu Tyr  
 1 5 10

<210> 36  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 36

Glu Pro Asp Arg Ala His Tyr Asn Ile Val  
1 5 10

<210> 37

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 37

Val Asp Ile Arg Thr Leu Glu Asp Leu Leu  
1 5 10

<210> 38

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 38

Glu Asp Leu Leu Met Gly Thr Leu Gly Ile  
1 5 10

<210> 39

<211> 11

<212> PRT

<213> Human papilloma virus

<400> 39

Thr Leu Glu Asp Leu Leu Leu Met Gly Thr Leu  
1 5 10

<210> 40

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 40

Ala His Tyr Asn Ile Val Thr Phe Cys  
1 5

<210> 41

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 41

Ser Thr His Val Asp Ile Arg Thr Leu  
1 5

<210> 42

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 42

Thr Leu Glu Asp Leu Leu Met Gly Thr Leu

1 5 10

<210> 43  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 43  
 His Val Asp Ile Arg Thr Leu Glu Asp Leu  
 1 5 10

<210> 44  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 44  
 Cys Lys Cys Asp Ser Thr Leu Arg Leu  
 1 5

<210> 45  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 45  
 Gly Asp Thr Pro Thr Leu His Glu Tyr  
 1 5

<210> 46  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 46  
 Met Gly Thr Leu Gly Ile Val Cys Pro Ile  
 1 5 10

<210> 47  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 47  
 Asp Leu Leu Met Gly Thr Leu Gly Ile Val  
 1 5 10

<210> 48  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 48  
 Arg Ala His Tyr Asn Ile Val Thr Phe  
 1 5

<210> 49



<211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 49  
 Pro Thr Leu His Glu Tyr Met Leu Asp Leu  
 1 5 10


<210> 50  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 50  
 Gly Thr Leu Gly Ile Val Cys Pro Ile  
 1 5

<210> 51  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 51  
 Asp Ser Gln Pro Leu Lys Gln His Tyr  
 1 5

<210> 52  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

 <400> 52  
 Pro Pro Asp Pro Val Gly Leu His Cys Tyr  
 1 5 10

<210> 53  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 53  
 Thr Leu Lys Asp Ile Val Leu Asp Leu  
 1 5

<210> 54  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 54  
 Leu Leu Leu Gly Thr Leu Asn Ile Val  
 1 5

<210> 55  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 55  
Gln Leu Val Asp Ser Ser Glu Asp Glu Val  
1 5 10

<210> 56  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 56  
Val Gln Gln Leu Leu Leu Gly Thr Leu  
1 5

<210> 57  
<211> 10  
<212> PRT  
<213> Human papilloma virus

<400> 57  
Val Leu Asp Leu Gln Pro Pro Asp Pro Val  
1 5 10

<210> 58  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 58  
His Val Thr Leu Lys Asp Ile Val Leu  
1 5

<210> 59  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 59  
His Tyr Gln Ile Val Thr Cys Cys Cys  
1 5

<210> 60  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 60  
Cys Tyr Glu Gln Leu Val Asp Ser Ser  
1 5

<210> 61  
<211> 10  
<212> PRT  
<213> Human papilloma virus

<400> 61  
Glu Val Asp Gly Gln Asp Ser Gln Pro Leu

1 5 10

<210> 62  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 62  
 Asn Ile Val Cys Pro Ile Cys Ala Pro Lys  
 1 5 10

<210> 63  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 63  
 Val Val Gln Cys Thr Glu Thr Asp Ile Arg  
 1 5 10

<210> 64  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 64  
 Ile Val Cys Pro Ile Cys Ala Pro Lys  
 1 5

<210> 65  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 65  
 Val Gln Cys Thr Glu Thr Asp Ile Arg  
 1 5

<210> 66  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 66  
 Cys Cys Gly Cys Asp Ser Asn Val Arg  
 1 5

<210> 67  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 67  
 Val Arg Leu Val Val Gln Cys Thr Glu  
 1 5

<210> 68

<211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 68  
 Gly Arg His Val Thr Leu Lys Asp Ile  
 1 5


<210> 69  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 69  
 Val Thr Leu Lys Asp Ile Val Leu Asp Leu  
 1 5 10

<210> 70  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 70  
 Ile Arg Glu Val Gln Gln Leu Leu Leu  
 1 5

<210> 71  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

 <400> 71  
 Asp Glu Val Asp Glu Val Asp Gly Gln  
 1 5

<210> 72  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 72  
 Thr Asp Ile Arg Glu Val Gln Gln Leu  
 1 5

<210> 73  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 73  
 Arg Glu Val Gln Gln Leu Leu Leu Gly Thr  
 1 5 10

<210> 74  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 74  
Leu Asn Ile Val Cys Pro Ile Cys Ala  
1 5

<210> 75  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 75  
Val Gly Leu His Cys Tyr Glu Gln Leu  
1 5

<210> 76  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 76  
Val Asp Gly Gln Asp Ser Gln Pro Leu  
1 5

<210> 77  
<211> 8  
<212> PRT  
<213> Human papilloma virus

<400> 77  
Asp Glu Val Asp Glu Val Asp Gly  
1 5

<210> 78  
<211> 8  
<212> PRT  
<213> Human papilloma virus

<400> 78  
Ser Glu Asp Glu Val Asp Glu Val  
1 5

<210> 79  
<211> 8  
<212> PRT  
<213> Human papilloma virus

<400> 79  
Thr Glu Thr Asp Ile Arg Glu Val  
1 5

<210> 80  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 80  
Leu Gln Pro Pro Asp Pro Val Gly Leu

1

5

<210> 81  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 81  
 Leu Leu Gly Thr Leu Asn Ile Val Cys  
 1 5

<210> 82  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 82  
 Asp Ile Arg Glu Val Gln Gln Leu Leu  
 1 5

<210> 83  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 83  
 Gln Pro Leu Lys Gln His Tyr Gln Ile  
 1 5

<210> 84  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 84  
 Cys Cys Gly Cys Asp Ser Asn Val Arg Leu  
 1 5 10

<210> 85  
 <211> 8  
 <212> PRT  
 <213> Human papilloma virus

<400> 85  
 Asp Ile Arg Glu Val Gln Gln Leu  
 1 5

<210> 86  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 86  
 Lys Gln His Tyr Gln Ile Val Thr Cys  
 1 5

<210> 87

<211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 87  
 Val Arg Leu Val Val Gln Cys Thr Glu Thr  
 1 5 10

<210> 88  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 88  
 Gly Arg His Val Thr Leu Lys Asp Ile Val  
 1 5 10

<210> 89  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 89  
 Thr Asp Ile Arg Glu Val Gln Gln Leu Leu  
 1 5 10

<210> 90  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 90  
 Val Gly Leu His Cys Tyr Glu Gln Leu Val  
 1 5 10

<210> 91  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 91  
 Gln Gln Leu Leu Leu Gly Thr Leu Asn Ile  
 1 5 10

<210> 92  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 92  
 Glu Val Gln Gln Leu Leu Leu Gly Thr Leu  
 1 5 10

<210> 93  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 93  
Gln His Tyr Gln Ile Val Thr Cys Cys  
1 5

<210> 94  
<211> 10  
<212> PRT  
<213> Human papilloma virus

<400> 94  
Arg His Val Thr Leu Lys Asp Ile Val Leu  
1 5 10

<210> 95  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 95  
Cys Thr Glu Thr Asp Ile Arg Glu Val  
1 5

<210> 96  
<211> 10  
<212> PRT  
<213> Human papilloma virus

<400> 96  
Glu Thr Asp Ile Arg Glu Val Gln Gln Leu  
1 5 10

<210> 97  
<211> 9  
<212> PRT  
<213> Human papilloma virus

<400> 97  
Cys Gly Cys Asp Ser Asn Val Arg Leu  
1 5

<210> 98  
<211> 8  
<212> PRT  
<213> Human papilloma virus

<400> 98  
Leu Gln Pro Pro Asp Val Gly Leu  
1 5

<210> 99  
<211> 10  
<212> PRT  
<213> Human papilloma virus

<400> 99  
Leu Gly Thr Leu Asn Ile Val Cys Pro Ile



1                      5                      10

<210> 100  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus


<400> 100  
 Gln Pro Leu Lys Gln His Tyr Gln Ile Val  
 1                      5                      10

<210> 101  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 101  
 Gly Cys Asp Ser Asn Val Arg Leu Val Val  
 1                      5                      10

<210> 102  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 102  
 Lys Gln His Tyr Gln Ile Val Thr Cys Cys  
 1                      5                      10

 <210> 103  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 103  
 Gly Thr Leu Asn Ile Val Cys Pro Ile  
 1                      5

<210> 104  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 104  
 Gln Pro Pro Asp Pro Val Gly Leu His Cys  
 1                      5                      10

<210> 105  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 105  
 Gln Asp Ser Gln Pro Leu Lys Gln His Tyr  
 1                      5                      10

<210> 106

<211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 106  
 Asp Ala Gln Pro Leu Thr Gln His Tyr  
 1 5

<210> 107  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 107  
 Val Val Glu Cys Thr Asp Gly Asp Ile Arg  
 1 5 10

<210> 108  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 108  
 Gln Leu Glu Asp Ser Ser Glu Asp Glu Val  
 1 5 10

<210> 109  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 109  
 Gln Leu Gln Asp Leu Leu Leu Gly Thr  
 1 5

<210> 110  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 110  
 Leu Val Thr Leu Lys Asp Ile Val Leu  
 1 5

<210> 111  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 111  
 His Tyr Gln Ile Leu Thr Cys Cys Cys  
 1 5

<210> 112  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 112

Cys Tyr Glu Gln Leu Glu Asp Ser Ser  
1 5

<210> 113

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 113

Arg Leu Val Thr Leu Lys Asp Ile Val Leu  
1 5 10

<210> 114

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 114

Lys Val Asp Lys Gln Asp Ala Gln Pro Leu  
1 5 10

<210> 115

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 115

Val Arg Leu Val Val Glu Cys Thr Asp  
1 5

<210> 116

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 116

Gly Arg Leu Val Thr Leu Lys Asp Ile  
1 5

<210> 117

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 117

Ile Arg Gln Leu Gln Asp Leu Leu Leu  
1 5

<210> 118

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 118

Asp Glu Val Asp Lys Val Asp Lys Gln

1

5

&lt;210&gt; 119

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 119

Gly Asp Ile Arg Gln Leu Gln Asp Leu

1

5

&lt;210&gt; 120

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 120

Leu Gln Asp Leu Leu Leu Gly Thr Leu

1

5

&lt;210&gt; 121

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 121

Gly Asp Ile Arg Gln Val Gln Asp Leu

1

5

&lt;210&gt; 122

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 122

Val Asp Lys Gln Asp Ala Gln Pro Leu

1

5

&lt;210&gt; 123

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 123

Ser Glu Asp Glu Val Asp Lys Val

1

5

&lt;210&gt; 124

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 124

Thr Asp Gly Asp Ile Arg Gln Leu

1

5

&lt;210&gt; 125

<211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 125  
 Leu Glu Asp Ser Ser Glu Asp Glu Val  
 1 5

<210> 126  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

<400> 126  
 Asp Ile Arg Gln Leu Gln Asp Leu Leu  
 1 5

<210> 127  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 127  
 Gln Pro Leu Thr Gln His Tyr Gln Ile Leu  
 1 5 10

<210> 128  
 <211> 9  
 <212> PRT  
 <213> Human papilloma virus

a | <400> 128  
 Thr Gln His Tyr Gln Ile Leu Thr Cys  
 1 5

<210> 129  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 129  
 Gly Arg Leu Val Thr Leu Lys Asp Ile Val  
 1 5 10

<210> 130  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 130  
 Gly Asp Ile Arg Gln Leu Gln Asp Leu Leu  
 1 5 10

<210> 131  
 <211> 10  
 <212> PRT  
 <213> Human papilloma virus

<400> 131

Gln Asp Leu Leu Leu Gly Thr Leu Asn Ile  
1 5 10

<210> 132

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 132

Gln His Tyr Gln Ile Leu Thr Cys Cys  
1 5

<210> 133

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 133

Cys Thr Asp Gly Asp Ile Arg Gln Leu  
1 5

<210> 134

<211> 11

<212> PRT

<213> Human papilloma virus

<400> 134

Leu Gln Leu Gln Asp Leu Leu Leu Gly Thr Leu  
1 5 10

<210> 135

<211> 9

<212> PRT

<213> Human papilloma virus

<400> 135

Gln Pro Leu Thr Gln His Tyr Gln Ile  
1 5

<210> 136

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 136

Leu Thr Gln His Tyr Gln Ile Leu Thr Cys  
1 5 10

<210> 137

<211> 10

<212> PRT

<213> Human papilloma virus

<400> 137

Arg Gln Leu Gln Asp Leu Leu Leu Gly Thr

1

5

10

&lt;210&gt; 138

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 138

Cys Cys Cys Gly Cys Asp Ser Asn Val

1

5

&lt;210&gt; 139

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 139

Asp Gly Asp Ile Arg Gln Leu Gln Asp Leu

1

5

10

&lt;210&gt; 140

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Human papilloma virus

&lt;400&gt; 140

Gln Asp Ala Gln Pro Leu Thr Gln His Tyr

1

5

10